

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS

1. (Previously Presented) A method for assigning private Internet Protocol (“IP”) addresses to network devices in a cluster, each of the network devices being capable of interconnecting at least two network segments and forwarding data frames from one network segment to another, said method comprising:

reading the Media Access Control (“MAC”) address of a first network device;
generating a private IP address as a function of said MAC address;
assigning said private IP address to said first network device; and
communicating with said first network device using said private IP address.

2. (Original) The method according to claim 1, wherein said first network device is a LAN switch.

3. (Previously Presented) The method according to claim 1, wherein said private IP address is automatically generated by adding the values of one or more bytes of said MAC address to a base private IP address.

4. (Original) The method according to claim 3, wherein said first network device is a LAN switch.

5-14. (Canceled)

15. (Previously Presented) A cluster of network devices, comprising:

a commander network device having a public IP address; and

a member network device having a private IP address automatically assigned by said commander network device, the private IP address being created as a function of a MAC address of said member network device, each of the network devices being capable of interconnecting at least two network segments and forwarding data frames from one network segment to another.

16. (Original) The cluster of network devices according to claim 15, wherein said commander network device is a LAN switch.

17. (Original) The cluster of network devices according to claim 15, wherein said commander network device is a LAN switch and said member network device is a LAN switch.

18. (Previously Presented) The cluster of network devices according to claim 15, wherein said private IP address is automatically generated by adding the values of one or more bytes of the MAC address of said member network device to a base private IP address.

19. (Original) The cluster of network devices according to claim 18, wherein said commander network device is a LAN switch.

20. (Original) The cluster of network devices according to claim 18, wherein said commander network device is a LAN switch and said member network device is a LAN switch.

21-26. (Canceled)

27. (Previously Presented) A first network device capable of automatically assigning a private Internet Protocol (“IP”) address to a second network device, said first and second network devices being capable of interconnecting at least two network segments and forwarding data frames from one network segment to another, said first network device comprising:

means for reading the Media Access Control (“MAC”) address of said second network device;

means for generating a private IP address as a function of said MAC address;

means for assigning said private IP address to said second network device; and

means for communicating with said second network device using said private IP address.

28. (Previously Presented) The first network device according to claim 27, wherein said first network device is a LAN switch.

29. (Previously Presented) The first network device according to claim 27, wherein said first network device is a LAN switch and said second network device is a LAN switch.

30. (Previously Presented) The first network device according to claim 27, wherein said means for generating the private IP address automatically generates the private IP address by adding the values of one or more bytes of said MAC address to a base private IP address.

31. (Previously Presented) The first network device according to claim 30, wherein said first network device is a LAN switch.

32. (Previously Presented) The first network device according to claim 30, wherein said first network device is a LAN switch and said second network device is a LAN switch.

33-35. (Canceled)

36. (Previously Presented) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for assigning private Internet Protocol ("IP") addresses to network devices in a cluster, each of the network devices being capable of interconnecting at least two network segments and forwarding data frames from one network segment to another, the method comprising:

- reading the Media Access Control ("MAC") address of a first network device;
- generating a private IP address as a function of said MAC address;
- assigning said private IP address to said first network device; and
- communicating with said first network device using said private IP address.

37. (Canceled)

38. (Currently Amended) The method according to claim 1, further comprising:

- detecting, at the first network device, a conflict between the assigned private IP address and an IP address being used by a network device other than the first network device.

39. (Previously Presented) The method according to claim 38, wherein said detecting includes:

- monitoring a source IP address of input IP packets received by the first network device.

40. (Previously Presented) The method according to claim 39, further comprising:
transmitting an address conflict detection message if the source IP address matches the private IP address of the first network device.
41. (Previously Presented) The cluster of network devices according to claim 15, wherein said member network device comprises:
conflict detection logic for detecting a conflict between the assigned private IP address and an IP address being used by a network device other than said member network device.
42. (Previously Presented) The cluster of network devices according to claim 41, wherein said conflict detection logic includes:
monitoring logic for monitoring a source IP address of input IP packets received by said member network device.
43. (Previously Presented) The cluster of network devices according to claim 42, wherein said monitoring logic generates an address conflict detection message if the source IP address matches the private IP address of said member network device.
44. (Currently Amended) The first network device according to claim 27, further comprising:
means for receiving an address conflict detection message indicating detecting a conflict between the assigned private IP address and an IP address being used by a network device other than said second ~~first~~ network device.

45. (Currently Amended) The first network device according to claim 27, further comprising:
~~claim 44, wherein said means for detecting includes:~~

means for monitoring a source IP address of input IP packets received by said first network device.

46. (Currently Amended) The first network device according to claim 44 ~~claim 45~~, further comprising:

means for automatically correcting a new private IP address for the second network device in response to receiving the ~~transmitting an~~ address conflict detection message from the second ~~if the source IP address matches the private IP address of said first network device.~~

47. (New) The cluster of network devices according to claim 42, wherein said conflict detection logic further detects conflict between the public IP address of said commander network device and an IP address being used by a network device other than said commander network device.

48. (New) The cluster of network devices according to claim 47, wherein said monitoring logic generates an address conflict detection message if the source IP address matches the public IP address of said commander network device.